

**ABSTRACT**

[0056] Systems and methods for dynamically adjusting an output driver are invented and disclosed. One embodiment comprises receiving a first signal. Applying the first signal to a first tuning element to generate a reference signal. Receiving a second signal. Applying the second signal to a second tuning element to generate a test signal, wherein the second tuning element is configured similarly to the first tuning element. Sampling the reference signal to generate a time-sampled reference signal. Sampling the test signal to generate a time-sampled test signal. Integrating the time-sampled reference signal and the time-sampled test signal to generate an error signal. Then, applying the error signal to adjust an output driver.